

IN THE CLAIMS:

1 1. (Previously Presented) A manufacturing method for a metal electrode whose
2 structure consists of multiple layers of one or more types of metal, comprising:

3 a first print step for printing a first photosensitive substance that includes a
4 mixture of a first metal, a photosensitive resin, and a solvent to form a first layer;

5 a first dry step for drying the first layer;

6 a first exposure step for exposing the first layer to form unevenly exposed regions
7 after the first dry step;

8 a second print step for printing a second photosensitive substance that includes a
9 mixture of a second metal, a photosensitive resin, and a solvent to form a second layer on the
10 first layer;

11 a second dry step for drying the second layer;

12 a second exposure step for exposing the second layer after the second dry step;

13 a development step for developing the whole of the first and the second layers;

14 and

15 a baking step for baking the electrode pattern to shape the metal electrode.

1 2. (Previously Presented) A manufacturing method for a metal electrode whose
2 structure consists of multiple layers of one or more types of metal, comprising:

3 a first print step for printing a first photosensitive substance that includes a
4 mixture of a first metal, a photosensitive resin, and a solvent to form a first layer;

5 a first dry step for drying the first layer to form unevenly heated regions;

a second print step for printing a second photosensitive substance that includes a mixture of a second metal, a photosensitive resin, and a solvent to form a second layer on the first layer;

a second dry step for drying the second layer;

an exposure step for exposing the whole of the first and the second layers after the second dry step;

a development step for developing the whole of the first and the second layers after the exposure step; and

a baking step for baking the electrode pattern to shape the metal electrode.

3. (Previously Presented) The manufacturing methods for the metal electrodes according to Claim 1, wherein

in each of the second dry steps, the first layer and the second layer are dried by rapidly heating the layers so that an ambient temperature is increased at a rate of 10 to 40°C/min.

4. (Previously Presented) The manufacturing methods for the metal electrodes according to Claim 3, wherein

in each of the second dry steps, the first layer and the second layer are dried with a member having impermeability to the solvent being arranged on the surface of a region having a high solvent content.

5. (Original) The manufacturing method for the metal electrode according to Claim 1, wherein

exposure values of the first exposure step and the second exposure step are different from each other, so that the dissolubility of the first layer and the second layer in the

development process can be controlled, whereby film thickness of each of the first layer and the second layer is controlled.

6. (Previously Presented) The manufacturing methods for the metal electrode according to Claim 1, wherein

the first photosensitive substance consists of a mixture of an RuO black pigment, a metal including at least one type of metal selected among Ag, Cr, Cu, Al, Pt, and Ag-Pd, a photosensitive resin, and a solvent, as minimum ingredients, and

the second photosensitive substance consists of a mixture of a metal including at least one type of metal selected among Ag, Cr, Cu, Al, Pt, and Ag-Pd, a photosensitive resin, and a solvent, as minimum ingredients.

7. (Previously Presented) A manufacturing method for a metal electrode, comprising:

a print step for printing a photosensitive substance that includes a mixture of a metal, a photosensitive resin, and a solvent to form a layer;

a dry step for drying the layer;

an exposure step for exposing the layer in a predetermined pattern;

a development step for developing the layer to reveal an electrode pattern; and

a baking step for baking the revealed electrode pattern to shape the metal electrode,

wherein, in the dry step, the layer is heated to form unevenly heated regions.

1 8. (Original) The manufacturing method for the metal electrode according to
2 Claim 7, wherein

3 in the dry step, a laser beam is irradiated to a portion which is to become an
4 electrode so as to dry the portion.

1 9. (Original) The manufacturing method for the metal electrode according to
2 Claim 7, wherein

3 the photosensitive substance consists of a mixture of a metal including at least one
4 type of metal selected among Ag, Cr, Cu, Al, Pt, and Ag-Pd, a photosensitive resin, and a
5 solvent, as minimum ingredients.

1 10. (Previously Presented) A manufacturing method for a plasma display panel
2 comprising the manufacturing steps of the metal electrode according to Claim 1.

1 11. (Previously Presented) The manufacturing methods for the metal electrodes
2 according to Claim 2, wherein

3 in each of the second dry steps, the first layer and the second layer are dried by
4 rapidly heating the layers so that an ambient temperature is increased at a rate of 10 to 40°C/min.

1 12. (Previously Presented) The manufacturing methods for the metal electrode
2 according to Claim 2, wherein

3 the first photosensitive substance consists of a mixture of an RuO black pigment,
4 a metal including at least one type of metal selected among Ag, Cr, Cu, Al Pt, and Ag-Pd, a
5 photosensitive resin, and a solvent, as minimum ingredients, and

the second photosensitive substance consists of a mixture of metal including at least one type of metal selected among Ag, Cr, Cu, Al, Pt, and Ag-Pd, a photosensitive resin, and a solvent, as minimum ingredients.

13. (Previously Presented) A manufacturing method for a plasma display panel comprising the manufacturing steps of the metal electrode according to Claim 2.

14. (Previously Presented) A manufacturing method for a plasma display panel comprising the manufacturing steps of the metal electrode according to Claim 7.

15. (Previously Presented) The manufacturing method for the metal electrode according to Claim 1, further comprising:

a third print step for printing a third photosensitive substance that includes a mixture of a third metal, a photosensitive resin, and a solvent to form a third layer; and

a third dry step for drying the third layer,

wherein the third print step and the third dry step are provided between the first dry step and the first exposure step.

16. (Previously Presented) The electrode according to Claim 15 wherein the electrode is for use in a plasma display device.

17-27. (Cancelled)